

Ins AS

# CLAIMS<sub>A</sub>

1. A display device having a light emitting layer interposed between a first electrode of a light reflective material and a second electrode of a transparent material and so configured that at least one of said second electrode and said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of part of light to be extracted, optical path length  $L$  of said cavity portion takes a positive minimum value in a range satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

2. A display device having a light emitting layer interposed between a first electrode of a light reflective material and a second electrode of a transparent material and so configured that at least one of said second electrode and said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting

layer, characterized in that:

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

$$-(2L')/\lambda + \Phi/(2\pi) = m_1 + 4$$

which is made by adding 4 to the integer  $m_1$  that is one of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (} m \text{ is an integer)}$$

with which  $L$  takes a positive minimum value.

3. A display device having a light emitting layer interposed between a first electrode of a light reflective material and a second electrode of a transparent material and so configured that at least one of said second electrode and said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light,

optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + q$$

which is made by adding an integer not smaller than 10 to the integer  $m_1$  that is one of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (} m \text{ is an integer)}$$

with which  $L$  takes a positive minimum value.

4. A display device having a light emitting layer interposed between a first electrode of a light reflective material and a second electrode of a transparent material and so configured that at least one of said second electrode and said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said second electrode.

5. A display device having a light emitting layer interposed between a first electrode of a light reflective material and a second electrode of a transparent material and so configured that at least one of said second electrode and said light emitting

layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

5 a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said second electrode; and

10 when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of part of light to be extracted, optical path length  $L$  of said cavity portion takes a positive minimum value in a range satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

with which  $L$  takes a positive minimum value.

6. A display device having a light emitting layer interposed between a first electrode of a light reflective material and a second electrode of a transparent material and so configured that at least one of said second electrode and said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

25 a color filter for transmitting light which

resonates in said cavity portion and is to be extracted through said second electrode is provided above said second electrode; and

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + 4$$

which is made by adding 4 to the integer  $m_1$  that is one of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (} m \text{ is an integer)}$$

with which  $L$  takes a positive minimum value.

7. A display device having a light emitting layer interposed between a first electrode of a light reflective material and a second electrode of a transparent material and so configured that at least one of said second electrode and said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said

second electrode; and

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + q$$

which is made by adding an integer not smaller than 10 to the integer  $m_1$  that is one of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (} m \text{ is an integer)}$$

with which  $L$  takes a positive minimum value.

8. A display device having a light emitting layer between a first electrode and a second electrode such that at least one of said light emitting layer and one of said first electrodes and said second electrodes permitting light to be extracted therethrough functions as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L$  is optical path length of said cavity portion, and  $\lambda$  is

the peak wavelength of the spectrum of part of light to be extracted, optical path length L of said cavity portion takes a positive minimum value in a range satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

9. A display device having a light emitting layer between a first electrode and a second electrode such that at least one of said light emitting layer and one of said first electrodes and said second electrodes permitting light to be extracted therethrough functions as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + 4$$

which is made by adding 4 to the integer  $m_1$  that is one of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

with which L takes a positive minimum value.

10. A display device having a light emitting layer between a first electrode and a second electrode such that at least one of said light emitting layer and one of said first electrodes and said second electrodes permitting light to be extracted therethrough functions as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + q$$

which is made by adding an integer not smaller than 10 to the integer  $m_1$  that is one of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (} m \text{ is an integer)}$$

with which  $L$  takes a positive minimum value.

11. A display device having a light emitting layer between a first electrode and a second electrode such that at least one of said light emitting layer and one of said first electrodes and said second electrodes permitting light to be extracted therethrough functions



as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

5 a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above one of said first electrode and said second electrode, through which light is to be extracted.

12. A display device having a light emitting layer between a first electrode and a second electrode such that at least one of said light emitting layer and one of said first electrodes and said second electrodes permitting light to be extracted therethrough functions as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

15 a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above one of said first electrode and said second electrode, through which light is to be extracted; and

20 when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of part of light to

be extracted, optical path length L of said cavity portion takes a positive minimum value in a range satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

5

13. A display device having a light emitting layer between a first electrode and a second electrode such that at least one of said light emitting layer and one of said first electrodes and said second electrodes permitting light to be extracted therethrough functions as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above one of said first electrode and said second electrode, through which light is to be extracted; and

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + 4$$

which is made by adding 4 to the integer  $m_1$  that is one

of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (} m \text{ is an integer)}$$

with which  $L$  takes a positive minimum value.

5 14. A display device having a light emitting layer between a first electrode and a second electrode such that at least one of said light emitting layer and one of said first electrodes and said second electrodes permitting light to be extracted therethrough functions as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

10 a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above one of said first electrode and said second electrode, through which light is to be extracted; and

15 when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

20

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + q$$

25 which is made by adding an integer not smaller than 10 to the integer  $m_1$  that is one of integers  $m$  satisfying

the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

with which L takes a positive minimum value.

5 15. A display device having a first electrode, a  
light emitting layer and a second electrode of a  
transparent material sequentially stacked on a  
substrate and so configured that at least one of said  
second electrode and said light emitting layer serves  
10 as a cavity portion of a cavity structure for  
resonating light emitted in said light emitting layer,  
characterized in that:

when the phase shift produced in light  
generated in said light emitting layer when reflected  
by opposite ends of said cavity portion is  $\Phi$  radians, L  
15 is optical path length of said cavity portion, and  $\lambda$  is  
the peak wavelength of the spectrum of part of light to  
be extracted, optical path length L of said cavity  
portion takes a positive minimum value in a range  
20 satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

16. A display device having a first electrode, a  
light emitting layer and a second electrode of a  
25 transparent material sequentially stacked on a  
substrate and so configured that at least one of said  
second electrode and said light emitting layer serves

as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + 4$$

which is made by adding 4 to the integer  $m_1$  that is one of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (} m \text{ is an integer)}$$

with which  $L$  takes a positive minimum value.

17. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that at least one of said second electrode and said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,

L' is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length L' of said cavity portion is determined to satisfy the equation:

5 
$$(2L')/\lambda + \Phi/(2\pi) = m_1 + q$$

which is made by adding an integer not smaller than 10 to the integer  $m_1$  that is one of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

10 with which L takes a positive minimum value.

18. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that at least one of said second electrode and said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

20 a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said second electrode.

25 19. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a

substrate and so configured that at least one of said second electrode and said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said second electrode; and

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of part of light to be extracted, optical path length  $L$  of said cavity portion takes a positive minimum value in a range satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

20. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that at least one of said second electrode and said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said second electrode; and

5 when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is  
10 determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + 4$$

which is made by adding 4 to the integer  $m_1$  that is one of integers  $m$  satisfying the equation:

15 
$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (} m \text{ is an integer)}$$

with which  $L$  takes a positive minimum value.

21. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a  
20 substrate and so configured that at least one of said second electrode and said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer,  
25 characterized in that:

a color filter for transmitting light which resonates in said cavity portion and is to be extracted



through said second electrode is provided above said second electrode; and

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + q$$

which is made by adding an integer not smaller than 10 to the integer  $m_1$  that is one of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (} m \text{ is an integer)}$$

with which  $L$  takes a positive minimum value.

22. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L$  is optical path length of said cavity portion, and  $\lambda$  is

the peak wavelength of the spectrum of part of light to be extracted, optical path length L of said cavity portion takes a positive minimum value in a range satisfying the equation:

5 
$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

23. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians, L' is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length L' of said cavity portion is determined to satisfy the equation:

15 
$$(2L')/\lambda + \Phi/(2\pi) = m_1 + 4$$

which is made by adding 4 to the integer  $m_1$  that is one of integers m satisfying the equation:

20 
$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

25 with which L takes a positive minimum value.

24. A display device having a first electrode, a

light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + q$$

which is made by adding an integer not smaller than 10 to the integer  $m_1$  that is one of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (} m \text{ is an integer)}$$

with which  $L$  takes a positive minimum value.

25. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said second electrode.

5

26. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said second electrode; and

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of part of light to be extracted, optical path length  $L$  of said cavity portion takes a positive minimum value in a range satisfying the equation:

20

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

25

27. A display device having a first electrode, a

light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said second electrode; and

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + 4$$

which is made by adding 4 to the integer  $m_1$  that is one of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

with which  $L$  takes a positive minimum value.

28. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that said light emitting

layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

5 a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said second electrode; and

10 when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

15 
$$(2L')/\lambda + \Phi/(2\pi) = m_1 + q$$

which is made by adding an integer not smaller than 10 to the integer  $m_1$  that is one of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (} m \text{ is an integer)}$$

20 with which  $L$  takes a positive minimum value.

29. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that said second electrode serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer,

25

characterized in that:

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of part of light to be extracted, optical path length  $L$  of said cavity portion takes a positive minimum value in a range satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

30. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that said second electrode serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + 4$$

which is made by adding 4 to the integer  $m_1$  that is on

of integers m satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

with which L takes a positive minimum value.

5 31. A display device having a first electrode, a  
light emitting layer and a second electrode of a  
transparent material sequentially stacked on a  
substrate and so configured that said second electrode  
serves as a cavity portion of a cavity structure for  
10 resonating light emitted in said light emitting layer,  
characterized in that:

when the phase shift produced in light  
generated in said light emitting layer when reflected  
by opposite ends of said cavity portion is  $\Phi$  radians,  
L' is optical path length of said cavity portion, and  $\lambda$   
15 is the peak wavelength of the spectrum of green light,  
optical path length L' of said cavity portion is  
determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + q$$

20 which is made by adding an integer not smaller than 10  
to the integer  $m_1$  that is one of integers m satisfying  
the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

with which L takes a positive minimum value.

25

32. A display device having a first electrode, a  
light emitting layer and a second electrode of a



transparent material sequentially stacked on a substrate and so configured that said second electrode serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said second electrode.

33. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that said second electrode serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said second electrode; and

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of part of light to be extracted, optical path length  $L$  of said cavity

portion takes a positive minimum value in a range satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

5 34. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that said second electrode serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

10 a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said second electrode; and

15 when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m1 + 4$$

20 which is made by adding 4 to the integer  $m1$  that is one of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

25 with which  $L$  takes a positive minimum value.

35. A display device having a first electrode, a light emitting layer and a second electrode of a transparent material sequentially stacked on a substrate and so configured that said second electrode serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said second electrode; and

when the phase shift produced in light generated in said light emitting layer when reflected by opposite ends of said cavity portion is  $\Phi$  radians,  $L'$  is optical path length of said cavity portion, and  $\lambda$  is the peak wavelength of the spectrum of green light, optical path length  $L'$  of said cavity portion is determined to satisfy the equation:

$$(2L')/\lambda + \Phi/(2\pi) = m_1 + q$$

which is made by adding an integer not smaller than 10 to the integer  $m_1$  that is one of integers  $m$  satisfying the equation:

$$(2L)/\lambda + \Phi/(2\pi) = m \text{ (m is an integer)}$$

with which  $L$  takes a positive minimum value.

36. A display device having a light emitting

layer interposed between a first electrode of a light reflective material and a second electrode of a transparent material and so configured that at least one of said second electrode and said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

when optical path length of said cavity portion is  $L$ , said optical path length  $L$  is determined so determined that difference between the peak wavelength of the spectrum of light to be extracted upon a change in view angle and the peak wavelength of the internal emission spectrum is limited within one half of the half-width of said internal emission spectrum.

37. A display device having a light emitting layer interposed between a first electrode of a light reflective material and a second electrode of a transparent material and so configured that at least one of said second electrode and said light emitting layer serves as a cavity portion of a cavity structure for resonating light emitted in said light emitting layer, characterized in that:

a color filter for transmitting light which resonates in said cavity portion and is to be extracted through said second electrode is provided above said

second electrode; and

when optical path length of said cavity portion is  $L$ , said optical path length  $L$  is determined so determined that difference between the peak wavelength of the spectrum of light to be extracted upon a change in view angle and the peak wavelength of the internal emission spectrum is limited within one half of the half-width of said internal emission spectrum.